CLAIMS

1. A apparatus comprising:

a substrate;

a plurality of position sensing devices located on the substrate for detecting the presence of an object;

a plurality of groups of the position sensing devices, each group being composed of a plurality of sensing devices and located at a selected, respective position on the substrate;

an electronic logic circuit coupled to each of the groups for sensing whether a human appendage has been placed adjacent the respective group.

2. The apparatus according to claim 1 wherein there the plurality of groups includes at least 3 groups.

3. The apparatus according to claim 2 wherein the groups are positioned adjacent each other organized in a grid having rows and columns.

4. The apparatus according to claim 2 wherein the groups and positioned with a first group surrounding a second group and the second group surrounding a third group.

5. The apparatus according to claim 4 wherein the groups are circular in shape.

6. The apparatus according to claim 1, further including a circuit for sensing an initial touch location and a last touch location.

7. The apparatus according to claim 1, further including a circuit for sensing the location of a human appendage on the surface at a first time and sensing the location the human appendage at a second time, after the first time.

8. The apparatus according to claim 1, further including:

a housing that supports the substrate;

a power source within the housing; and

a transmitter within the housing.

9. The apparatus according to claim 8, further including:

a fingerprint identification circuit within the housing including a fingerprint sensing array, a memory for storing reference fingerprint patterns and a circuit to compare a fingerprint sensed by the array with a reference fingerprint pattern stored in the memory.

10. An apparatus for remotely controlling automobile functions comprising:

a housing;

a semiconductor substrate coupled to and supported by the housing;

a power source within the housing;

a transmitter within the housing;

a plurality of position sensing devices positioned within the semiconductor, the sensing devices being organized into a plurality of segmented groups; and

a circuit coupled to each group to sense whether a human appendage is adjacent the group.

11. The apparatus according to claim 10, further including:

a finger print identification circuit coupled to the semiconductor substrate for sensing the identity of the a fingerprint placed thereon.

12. The apparatus according to claim 11 wherein the fingerprint sensor circuit includes:

a memory for storing a plurality of reference fingerprint sensor patterns;

a comparison circuit for comparing a pattern of a fingerprint placed on the substrate with a fingerprint pattern stored in memory; and

an output circuit that outputs an indication of a match between an input fingerprint pattern and a fingerprint pattern stored in the memory.

13. The apparatus according to claim 12, further including an enable circuit coupled to output circuit for enabling the transmitter to transmit selected commands only after a fingerprint input pattern has matched a reference fingerprint pattern.

14. The apparatus according to claim 10, further including:

an automobile

a receiver circuit coupled to the automobile for receiving input from the transmitter.

15. A method of sensing input from a finger of a user comprising:

sensing a first touch location on a substrate;

sensing a second touch location spaced from the first touch location on a substrate;

comparing the input sequence of the first and second touch locations to a set of reference sequences stored in memory;

outputting the identity of a match between the input sequence and the reference sequence;

performing a pre-programmed function based the identity of the match.

16. The method according to claim 15, further including:

receiving a sample fingerprint pattern on the substrate;

comparing the sample fingerprint pattern to a plurality of stored reference patterns;

outputting a signal indicating a match between the sample input pattern and a stored pattern; and

performing the pre-programmed function only after a match has been found between the input fingerprint pattern and a reference pattern.

17. The method according to claim 15, further including:

receiving a sample fingerprint pattern on the substrate;

comparing the sample fingerprint pattern to a plurality of stored reference patterns;

outputting a signal indicating whether or not there is a match between the sample input pattern and a stored pattern; and

permitting the performing of selected pre-programmed functions before a match has been found between the input fingerprint pattern and a reference pattern.

18. The method according to any one of claims 16 or 17, further including:

transmitting a code representing the function to be performed from a location adjacent the substrate to an automobile to perform selected functions at the automobile.

19. The method according to claim 18 wherein one of the functions performed is to lock the doors of the automobile.

20. The method according to claim 19 wherein the function of locking the doors is permitted to be performed before a match is found.

21. The method according to claim 18 wherein one of the functions performed is to unlock the doors of the automobile.

22. The method according to claim 15, further including:

sensing if a first touch occurred in a bottom portion of the substrate; and

sending if a last touch occurred in a top portion of the substrate.

23. The method according to claim 15, further including:

sensing if a first touch occurred in a central portion of the substrate; and

sensing if a last touch occurred in an outer portion of the substrate.